INDEX

Abbott (Prof. C. C., M.D.), Origin of American Indians, 203; Feeding Habits of the Belted Kingfisher, 362
Aberdeen University, 54; Election of Lord Rector, 35, 54, 111, 131, 250
Abiogenesis (*See* Beginnings of Life, Bastian, H. C., Huizinga, Prof. D.)
Academical Study, Organisation of, 72
Acclimatisation Society of Victoria, 484
Acquired Habits in Plants, 445
Action at a Distance (Prof. Clerk-Maxwell, F.R.S.), 323, 341
Adams (Prof. W. G., F.R.S.), Physics for Medical Students, 27; "Diathermanous" or "Transfervent?" 341
Adaptation to External Conditions; Frogs and Salamanders, 401
Aeronautics in America, 413
African Exploring Expeditions, 35, 36, 70, 79, 169, 189, 251, 270, 289, 351, 391
Agassiz (Prof.), The *Hassler* Expedition, 111, 230; Sub-marine Photography, 210; Survival of the Fittest, 404; Penikese Island and 50,000 dollars given to him by Mr. J. Anderson, 445, 471, 477
"Air and Water, Hygiene of," by W. Proctor, M.D., F.C.S., 318
Air-Battery, Dr. J. H. Gladstone, F.R.S., 472
Airy (Hubert, M.D.), Leaf Arrangement, 341, 403, 442
Aitken (John), Glacier Motion, 287
Alabama, Climate of, 231
Algæ, M. de Brebisson's Collections, 332
Algeria, Geodetic Operations in, 450
Alleghany Observatory, 251
Aloes, American, 335
Altum (Dr. Bernard), "Forest Zoology," 141
Amber Works in Western Yunan, 317
America: Aeronautics, in, 413; Penikese Island given to Prof. Agassiz, 445, 471, 477; Prof. Tyndall's Lectures, 34, 54, 150, 190, 224, 249, 268, 370, 445, 490; Science and the Press, 445 (*See* Alleghany, Boston, California, Manitoba, New York, Philadelphia)
American Museum of Natural History, 332
American Scientific Intelligence, 56
American Signal Service, 484
American Survey and Geological Survey, 370, 371
American Indians, their Origin, 203
Anderson (J., M.D.), "Expedition to Western Yunan," 317
Anderson (John), his gift of Penikese Island and 50,000 dollars to Prof. Agassiz, 445, 471, 477
Anderson (J. F.), November Meteors at Pau, 123
Animals: Instinct, Inherited Instinct, and Perception in, 281, 303, 322, 340, 360, 361, 371, 377, 409, 417, 424, 437, 443, 444, 463, 483
Ansted (Prof.), Accident to, 452
Anthropological Institute, 39, 75, 135, 175, 208, 213, 249, 255, 267, 295, 310, 373, 395, 415, 455
Antinomies of Kant, 262, 282
Ants, Nature and Habits of, 10
Ants, Perception in, 443
"Ants, Harvesting," by J. T. Moggridge, F.L.S., 337, 453
Aquaria: Brighton, 169, 209, 231, 362, 451; Crystal Palace 15; San Francisco, 151
Aquatic Articulata, 469
Arachnida, Hints on collecting, 163 (*See* Trap-door Spiders)
Arctic Exploration, 7, 53, 117, 157, 170, 188, 208, 231, 249, 270, 311, 395, 413, 432, 452
Aristotle, Anticipation of Natural Selection, 402
Armstrong (Sir W., C.B.), The Coal Question, 270, 291
Articulata, Aquatic, 469
Asbestos, Manufacture and Application of, 210
Ashmolean Society, 370
Assyria, *Daily Telegraph* Exploration, 151, 210
Assyrian Record of the Deluge, 55, 87
Astronomical Expedition, American, 107
Astronomy, Belgian Contributions to, 23
Atlantic Telegraph, Free Transmission of Astronomical Observations, 250
Atmosphere, its Blue Colour, 132
Atmospheric Electricity, 9
Atmospheric Haze, 291
Atmospheric Refraction, 163
Atropia and Physostigma, 69
Attwood (F. L.), Physics for Medical Students, 7
Aurora by Daylight, 29
Aurora, Spectrum of, 182, 201, 242, 463; Polarisation of, 201
Auroral Display at Carlisle, 481
Auroral Phenomena, Trebizond, 181
Australia, the Rising of, 129
Australia, Science in, 452
Australia and Tasmania, Geological Map, 249
"Australian Mechanic and Journal of Science," 274

Babbage (the late Chas., F.R.S.), Sale of his Mathematical Collections, 34; his "Tables" and Library, 171
Babinet (M.), Obituary Notice of, 53
Backhouse (T. W.), Day Aurora, 29; The Zodiacal Light, 341; Spectrum of Aurora, 463
Bacteria (*See* Bastian, H. C., M.D., Beginnings of Life)
Bagehot (Walter), "Physics and Politics," 277
Baillon (H.), "Natural History of Plants," 320
Baird (Wm. M.), Obituary notice of, 89
Baker (Sir S. and Lady), Reported Murder of, 489
Baranetzky (J.), Diosmotic Properties of Colloids, 152
Barbados, Rainfall at, 124, 161
Barber (Samuel), November Meteors at Liverpool, 123
Barrett (W. F., F.C.S.), Prof. Tyndall's Researches on Radiant Heat, 66
Barrington (R. M.), Phosphorescence in Wood, 464
Barrows, in Cornwall, 378; near Beverley, 452
Bartlett (A. D.), Silver Medal to him on the rearing of the Hippopotamus, 150
Bastian (H. C., M.D., F.R.S.), his Experiments, 123, 180, 242, 261, 302, 321, 380, 413, 434; "Note on the Origin of Bacteria" (Roy. Soc.), 275
Bath Natural History Society, 151
Baumhauer (E. H. von), Dutch Society of Sciences, 464
Beale (Prof. L. S., F.R.S.), Physics for Medical Students, 7
Bees, Perception in, 410; Inherited Instinct, 417
Beet-Sugar, 375
"Beginnings of Life," Dr. H. C. Bastian, F.R.S., on, 26; Discussion on, 104, 123, 180, 242, 380, 413, 434
Belfast Naturalists' Field Club, 35
Belgian Academy, 369
Belgian Contributions to Astronomy, 23
Belgium, Magnetic Survey of, 295
Belgium, Report on Botanical Science, 320, 334; Science in, 114, 168, 210
Bentham (Geo., F.R.S.), Our National Herbarium, 26; Carex and Uncinia, 372
Bennett (A. W., F.L.S.), Pollen-eating Insects, 202; External Perception in Animals, 322, 361
Berlin University, 89; Professorship of Photography, 88; African Expedition, 151; New Physiological Laboratories, 405; Transit of Venus, 451
Berne, Scientific Society, 235

Bessemer (Mr.), his Saloon Steamer for the Channel Passage, 41
Biblical Archæology, Society of, 87
Biela's Comet, 163
"Bird Life," by Dr. Brehm, translated by Labouchere and Jesse, 121
Birds: Yarrell's "British Birds," by Newton, 461
"Birds (British), Handbook of," by J. E. Hartwig, F.L.S., 101
Birds, Instinct of Tumbler Pigeons, 387, 417; Ceylon Pigeon Express, 351; Destruction of Rare, 464
Birds, Fossil, in Kansas, 310
"Birds of Egypt, Handbook to the," 178
Birmingham and Midland Institute, 53
Birmingham School Natural History Society, 269
Black (W. J.), Gauges for Ocean Rainfall, 202
Blake (Prof. Jas.), Supposed new Marine Animal, 67
Blind Fish of the Wyandotte Cave, 12
Blue Colour of Sky and Water, 132
Bolton Literary and Scientific Society, 15
Bombay, Grant Medical College, 269
Bordeaux, Science at, 190; Scientific Association, 70
Borlase (W. C., B.A.), "Sepulchral Monuments of Cornwall," 337, 378
Borneo, Cave-deposits, 461
Boston (U.S.), Academy of Arts and Sciences, 214; the Great Fire, 215, 230
"Botanists' Pocket Book," by W. R. Hayward, 360
Botany: Notes in Lisbon, 229; Professorship at Caracas University, Botanic Garden, Liége, 351; "The Useful Plants of India," by Col. H. Drury, 340; Dr. H. Airy on Leaf-Arrangement, 341, 403, 442; Edinburgh Botanical Society, Fertilisation of Grasses, 391; Botany in Belgium, 334
Bowring (Sir John), Obituary Notice of, 70
Braun (Dr. A.), Darwinism, 5
Breslau, Silesian Society for National Culture, 137, 158, 162
Brett (John, F.R.A.S.), Italian Report on the Eclipse of 1870, 308
Brewer (W. H.), Sense of Smell in Animals, 360, 410; Maupertuis on Natural Selection, 402
Bright Lines in the Solar Spectrum, Prof. C. A. Young on, 17
Brighton Aquarium, 169, 209, 231, 362, 451
Brighton, Geology of, 395
Bristol, Meteors at, 85, 322
Bristow (H. W., F.R.S.), "Table of British Strata," 452
British Association; Arrangements for 1873, 88
British Museum, Herbarium, 5, 26, 45, 103; Memorial to Mr. Gladstone, 212; his Reply, 243; Prof. Dyer on, 243
Broca (Paul), Troglodytes of the Vézère, 305, 326, 366, 426
Brockbank (W., F.G.S.), Glacial Action in the Furness District, 374
Brodie (Sir B. C., Bart., F.R.S.), Scientific Research and University Endowments, 97
Brough (the late J. C.), Subscription for his Family, 35, 470
Brown Institution, 369
Brunton (T. L., M.D.), "Physiological Chemistry," 441
Buchan (Alex., M.A.), Rainfall and Temperature of North Western Europe, 245
Buckland (A. W.), Perception in Fowls, 444
Buckton (G. B., F.R.S.), Reason or Instinct? 47
Buenos Ayres, Burmeister's Annals of the Public Museum, 240
Burder (Dr. G. F.), Rainbows on Blue Sky, 68; Twinkling of the Stars, 222, 262
Burmeister (G., M.D.), "Annales del Museo Publico de Buenos Ayres," 240
Burwash (N.), *Elephas Americanus* in Canada, 47
Butterflies, Perception in, 444
Butterflies of North America, 412
Butterfly-hunting at Panama, 311

Cacciatore (Prof. Cav. G.), Report on the Eclipse of 1870, 308
California: Aquarium at San Francisco, 151; Academy of Sciences, 256, 476, 490; Agassiz Institute, 189
Cambridge, Science at, 14, 53, 88, 110, 169, 189, 190, 209, 249, 250, 251, 268, 289, 311, 331, 349, 369, 391, 411, 432, 451, 470; Cambridge Scholarships and Examinations in Science, 229; Philosophical Society, 20, 75, 155, 374, 474
Cambridge (U.S.), Museum of Comparative Zoology, 471
"Canada, Post-pliocene Geology of," by J. W. Dawson, LL.D., 240
Capron (J. Rand), Spectra of Aurora and Zodiacal Light, 182, 201
Carruthers (Wm., F.R.S.), Our National Herbarium, 26, 103
Cassiterides, Origin of the Name, 68, 104
Catlin (George), Obituary Notice of, 222
Cats: Sense of Smell, 303, 322; Perception, 360; Inherited Instinct, 371; Sociability, 425; Polydactylous, from Cookham-Dean, 323; White Toms, 464
Cave-deposits of Borneo, 461
Cayley (Prof.), Presentation Portrait of, 349
Celtic Society, 75
Ceylon, Science in, 42; Pigeon Express, 351; Land Planarians, 353
Challenger, H.M. Ship: Accounts of Voyage, 109, 117, 131, 231, 430, 471; her Scientific Orders, 191, 252; Report by Prof. W. Thomson, F.R.S., 385
Charing Cross Hospital, 15, 54, 123, 168
Charterhouse Science-Classes, 425
Chemical Society, 39, 75, 134, 175, 231, 235, 295, 335, 373, 415, 454, 494
"Chemical Technology, Handbook of," by R. Wagner, Ph.D., 4
"Chemistry, Inorganic," by Geo. Wilson, M.D., 441
"Chemistry, Manual of," by Fownes, revised by H. Watts, F.R.S., 179
"Chemistry, Organic," by W. G. Valentin, F.C.S, 160
"Chemistry, the Birth of," by G. F. Rodwell, F.C.S., 36, 90, 104, 206, 285, 393, 492
Chester, Society of Natural Science, 55; Science at, 432
China, Science in, 35
Chisholm (H. W.), International Metric Commission, 197, 327
Chromosphere, (New Method of viewing the), 313
Circular Spraybows, 46
Civil Engineers, Institution of, 16. 210, 255, 455, 474
Clarke (Hyde), The Phœnician Vademecum, 462; Earthquake Waves, 463
Clarke (Prof. F. L.), the Hawaiian Volcano, Mauna Loa, 124
"Clematis as a Garden Flower," by T. Moore, F.L.S., and G. Jackman, F.R.H.S., 102
Clerk-Maxwell (Prof. J.), Action at a Distance, 323, 341; "Electricity and Magnetism," 478
Clifford (Prof. W. K.), Kant's Antinomies, 262, 282, 302
Clifton College, 54, 151
Climate of Alabama, 231
Clouds: "Forms of Water," by Prof. J. Tyndall, F.R.S., 400
Coal: Rise in Price of, 267; in Bagdad, 332; in Central Asia, 349; in Peru, 311; in Western Yunan, 317; Prizes for Economy in its Use, 150, 451
Coal Question, Sir W. Armstrong, C.B., on the, 270, 291
"Coal-fields of Great Britain," by E. Hull, M.A., F.R.S., 319
Coal-fields, Scottish, 14; of Victoria, 200
Coffin (Prof.), Obituary Notice of, 350
Cohn (Prof. Ferdinand), Lecture on the Progress of Natural Science, 137, 158, 162; "Beitrage zur Biologie der Pflanzen," 300
Cole (H., C.B.), his intended Resignation, 230
College of Surgeons, 14, 289, 310; Hunterian Lectures, 289, 310, 330, 348, 364, 388, 408, 428
Colloids, Diosmotic properties of, 152
Collyer (R. H., M.D.), "Exalted States of the Nervous System," 360
Colorado River, 290
Coloured Stars about Kappa Crucis, 130
Cometary Star-Shower, 77
Comets, their Tails, 105; and Meteors, Connection between, 468
Contagious Diseases, 283
Cook (Captain), his South Polar Explorations, 22, 139
Cooke (E. W., R.A.), "Grotesque Animals," 280
Cope (Prof. E. D.), Wyandotte Cave and its Fauna, 11; Proboscidians of Wyoming, 471
"Corals and Coral Islands," by Jas. D. Dana, LL.D., 119, 423
Cornu (M.), Growth and Migrations of Helminths, 265; Geodetic Operations in Algeria, 450
"Cornwall, Sepulchral Monuments of," by W. C. Borlase, B.A., 337, 378
Corona Line, Prof. C. A. Young on the, 28
Cotopaxi, Ascent of the Great Volcano, 449
Cowell (Sir J.), Fire-ball near Slough, 146
Cox (E. W., Serjeant-at-Law), Animal Instincts, 424
Crabs, Perception in, 424

Cromlechs (*See* Sepulchral Monuments)
Crookes (Wm., F.R.S.), Wagner's "Chemical Technology," 4
Cryptogams, Fossil, 267
Crystal Palace: Aquarium, 15; School of Art, Science, and Literature, 35
Curry (John), November Meteors at Rookhope, 85
Curved Space, 282
Cycles, Meteorological, 161, 262 (*See* Meteorology)
Cyclone, Madras, May 2, 1871, 356
Cyclopædias, Misleading, 68, 162

Dana (Jas. D., LL.D.), "Corals and Coral Islands," 119, 423
Danks's Rotating Furnace, 272
Darwin (Chas., F.R.S.), Origin of Certain Instincts, 417; Perception in Animals, 360; Inherited Instinct, 281; Philosophy of Language, Prof. Max Muller on, 145
Darwinism: Expression, 362, 351, 433; German Works on, 5; A Fact for Mr. Darwin, 462 (*See* Evolution Theory, Survival of the Fittest, Instinct)
Davies (Wm.), Murchison Medal awarded to, 355
Davy, his Work at the Royal Institution, 265
Dawkins (W. B., F.R.S.), Settle Cave Exploration, 374
Dawson (J. W., LL.D.), Post-pliocene Geology of Canada, 240
Day Aurora, 29
De Candolle (Alphonse), Natural Selection, 277
Deep Sea Dredging on board the *Challenger*, 430
Deep Sea Soundings near the Equator, 404
Deep Springs, 177, 283
De La Rue (Dr. Warren, F.R.S.), donation to Laboratories of Royal Institution, 451
Deluge, Assyrian Record of the, 55; Mr. Gladstone's Speech, 87
De Morgan (A.), "A Budget of Paradoxes," 239
Denning (W. F., F.R.A.S.), November Meteors, 185; Meteor at Bristol, 322; Meteorological Notes, 471; April Meteors, 482
Denton (J. Bailey), Deep Springs, 177, 283
Denza (Father), November Meteors in Piedmont, 122
De Saussure (M.), Eruption of Vesuvius in 1872, 1, 3
Diamonds, Combustion of, 456
Diathermacy of Flame, 28, 46, 149, 201
"Diathermacy," or "Diathermancy?" 242
"Diathermanous," or "Transfervent?" 341
Diffusion of Gases, 9
Dinoceras mirabilis, Prof. O.C. Marsh on, 366; and its Allies, 481
Dinocerata, Prof. O. C. Marsh on, 491
Diosmotic Properties of Colloids, 152
Dipterocarpeæ, Geographical Distribution of, 162
Dogs, Inherited Instinct and External Perception in, 281, 322, 340, 361, 377, 384, 409, 410, 411, 424
Dolmen (*See* Sepulchral Monuments)
Drach (S. M.), Eleven-year Rainfall Period, 161
Draper (H. W.), Effect of Light on Selenium, 340
Draper (J. W.), Deep-sea Soundings near the Equator, 404
Drury (Col. H.), "The Useful Plants of India," 340
Dublin: Pathological Society, 133; Royal College of Science, 370; Botanic Garden, 370; Royal College of Surgeons, 111; Royal Dublin Society, 332; Royal Geographical Society, 454; Royal Geological Society, 456; Royal Irish Academy, 375, 412, 431, 456, 494; Trinity College, 88, 331; Trinity College Observatory, 431; University, 54, 171; Zoological Society, 456
Dufour (Louis), Diffusion of Gases, 9
Duncan (Prof., F.R.S.), Insect Metamorphosis (Br. A.), 30, 50; Dana on Corals, 119, 423
Dunker (Dr. W.) and Dr. K. A. Zittel, "Palæontographica," 45
Dutch Society of Sciences, 464
Dyer (Prof. W. T. Thistleton), the National Herbaria, 243

Earth, Movement of its Surface, 221
"Earth, The," and "The Ocean," by Elisée Reclus, 421
Earthquakes: near Derby, 68; Vancouver's Island, Bogota, Sinde, Samos, 268; Pembrokeshire, 283; Lahore, Scinde, 289; Constantinople, 290; India, Central America, Guayaquil, Samos, 311; Samos, Smyrna, 332; Vienna, 336; Turkey, Tyre, Jerusalem, 351; Asia Minor, Mitylene, Central America, India, 392; Samos, Asia Minor, Rhodes, 432
Earthquake Waves, 385, 463
Earthworms, 210
Earwaker (J. P.), Meteor at Northwich, 322
Echinoderms, Publications on, 350; found by the *Challenger*, 387
Eclipse of 1870, Italian Report on, 308
Eclipse Expedition of 1871, J. N. Lockyer, F.R.S., on, 57, 92
Eclipses, Early, 47
Edinburgh: Geological Society, 132; Museum of Science, 55; Royal Botanic Society, 61, 78, 151, 214, 391, 490; Royal Observatory, 451; Royal Physical Society, Naturalist's Field Club, 154; Royal Society, 111; Scottish Meteorological Society, 375; University, 54, 164, 183, 431; Female Education, 71
Education: International College at Zurich, 89 (*See* Female Education)
"Egypt, Birds of," by G. E. Shelley, F.G.S., F.L.S., 178
Egyptian Weight found in the Great Pyramid, 146
Electric Conductivity: Effect of Light on Selenium, 303, 340, 361
Electricity and Earthquakes, 162
"Electricity and Magnetism," by J. Clerk-Maxwell, M.A., 478
Electrostatics and Magnetism, Papers by Sir W. Thomson D.C.L., 218
Elephanta, Caves of, 72
Elephas Americanus in Canada, 47
Empedocles, Anticipation of Natural Selection, 402
Endowments and Bequests in England and America, 97, 477
Engineering: Class at the Crystal Palace, 35; College in Japan, 430
Entomological Society, 39, 75, 154, 195, 295, 315, 373, 415
Ericsson (Capt. J.), Diathermancy of Flame, 149; Radiant Heat, 273
Ernst (Dr. A.), November Meteors, 443
Ethnology: "Zeitschrift für Ethnologie," 473
Evaporation and Rainfall, 118
Everett (J. D.), Dr. Cohn's Lecture on the Progress of Science, 162; Atmospheric Refraction, 163
Everett (A.), Cave-deposits of Borneo, 461
Evolution Theory in Germany, 352, 433
Exeter College, 169

Faraday, his Work at the Royal Institution, 265; his Electrical Researches, 341
Faroe Islands, Zoology, 105; Rainfall and Temperature, 245
Fawcett (Thos.), November Meteors in Cumberland, 86
Faye's Comet, 291
Fayrer (J., M.D.), "The Thanatophidia of India," 140
Female Education: Gröningen, 15; Edinburgh University, 71; National Union, 89, 411; Cambridge, Paris, 111; Prize Essay of Netherlands Association, 132; Glasgow University, 133; Edinburgh Field Club, 154; Edinburgh Royal Infirmary, 170; America, 452
Fermentation and Putrefaction, 61, 78
Figuier (M.) and the Origin of American Indians, 203
Fiords and Glacial Action, 323
Fire-ball near Slough, 146
Fish: Phosphorescence in, 47, 221; *Lampris guttatis* (Faroe Islands), 106; Classification of, 372; Propagation in America, 491
Fisher (Rev. O.), Perception in the Lower Animals, 410
Fisheries of Michigan, 351
Flame, Diathermacy of, 28, 46, 149, 201
Flax, Prehistoric Culture of, 453
Flight of Projectiles, 341, 362, 404
Flint Implements, 306, 328, 367, 373
Flora of the Quantocks, 48
Florence, Observatory at, 15
Flower (Prof.), his Hunterian Lectures, 289, 310, 330, 348, 364, 388, 408, 428
Forbes (David, F.R.S.), Palmieri's "Vesuvius," 259, 382
Forestry in its Economical Bearings, 118
"Forest Zoology," by Dr. Bernard Altum, 141
Fossil Man of Mentone, 10, 71, 443; Whales of Antwerp, 94; Cryptogams, 267, 403; Birds from Kansas, 310; Cephalopods, 94, 350
Foster (M., F.R.S.), "Functions of Muscle and Nerve," 440
Fowls, Perception in, 444
Fownes's "Manual of Chemistry," by H. Watts, F.R.S., 179
Fox (Howard), Will-o-the-Wisps, 222
France: Bureau des Longitudes, 269; Institution for the Experimental Sciences, 485 (*See* Paris)

Frankland (E., F.R.S.), his Work at the Royal Institution, 265
Fraser (Thos. R., M.D.), Physostigma and Atropia, 69
Frere (Sir Bartle, C.B.), his Anti-Slavery Expedition, 70, 189
Fungi, Fermentation and Putrefaction, 61, 78

Garrod (A. H.), Dinoceras and its Allies, 481
Gas, New Mode of Lighting, 89; (Hydrocarbon), Mr. Ruck's Process, 329
Gasometer on Fire, 312
Gauges for Ocean Rainfall, 123, 202
Geikie (Prof., F.R.S.), Introductory Murchison Lecture on Geology, 164, 183; Deep Springs, 177; "Physical Geography," 359
Geikie, (Jas.), Scottish Coal Fields, 14
Geodetic Operations in Algeria, 450
Geographical Society, 35, 36, 70, 117, 157, 208, 276
Geography, Geikie's "Physical Geography," 359
Geological Science in Switzerland, 10; Society, 59, 115, 134, 175, 354, 372, 414, 454; Exhibition at Glasgow, 112, 128; Magazine, 133, 173, 234; Institute, Vienna, 175, 336, 442, 476, 495; Survey of India, 281; "Jahrbuch," Vienna, 320; Survey of America, 370
Geologists' Association, 75, 154, 214, 295, 334, 349, 395, 412, 474, 494
Geology of Iowa, 16; Subjects taught at the College, Newcastle-on-Tyne, 102; the Rising of Australia, 129; Prof. Geikie's Introductory Murchison Lecture, 164, 183; Glacial Action, 287, 323, 351, 362, 374; Election of Woodwardian Professor, 331
"Geology: Post-pliocene of Canada," by J. W. Dawson, LL.D., 240
Geometry; Prof. Clifford and Dr. Ingleby on Curved Space, 282
Giebel (Dr. C. G.), "Thesaurus Ornithologiæ," 44
Giggleswick Grammar School, 230
Glacier Motion, 287, 323, 351, 362, 374
Glaciers; "Forms of Water," by Prof. J. Tyndall, F.R.S., 400
Gladstone (Dr. J. H.), an Air-Battery, 472
Gladstone (Rt. Hon. W. E.), his Speech on the Assyrian Record of the Deluge, 87; Memorial to him on the National Herbaria, 212; his Reply, 243
Glasgow, Geological Exhibition, 112, 128; Geological Society, 56, 255, 475; Society of Field Naturalists, 412; Technical College, 151; University, 131, 392; University, Female Education, 133
Gold produced in Victoria, 201
Göppert (Prof. H. K.), Inscriptions in Trees, 83
Gottingen, Royal Society of Sciences, 155
Government and the Arctic Expedition, 157, 170, 188, 208; Kew Herbarium, 243
Grandy (Lieut.), and the "Livingstone Congo Expedition," 110, 112, 251
Grashof (Dr. F.), "Theory of Machinery," 45
Great Pyramid, Ancient Egyptian Weight found in, 146
Greenland, Researches in, 835
Greenwich, Royal Naval College, 209, 217
Greenwich Date, the, 68, 105, 242
Greenwood (Col. Geo.), The Greenwich Date, 105
Greek at London University, 310
Gregory (Rt. Hon. W. H.), Science in Ceylon, 42
Gresham Lectures, 190, 283
Grey-Egerton (Sir P. de M., Bart., F.R.S.), Wollaston Medal given to, 354
"Grotesque Animals," by E. W. Cooke, R.A., 280
Günther (Albert, F.R.S.), Salmonidæ of Great Britain, 203

Haeckel (Prof. Ernst.), on Calcareous Sponges, 279; Theory of Evolution, 352, 433
Hæmatozoon in the Blood, 289
Hagen (Dr. A.), Mimicry in the Colours of Insects, 112
Haggerstone Entomological Society, 55
Hague (Jas. D.), Perception in Ants, 443
Hailstorm in India, 392
Hall (Prof. Asaph), November Meteors at Washington, 122; Logarithmic Tables, 222
Hall (Marshall), Brighton Aquarium, 362
Hall (Maxwell), Source of the Solar Heat, 262; Zodiacal Light, 203, 340; November Meteors, 341
Harlem; Dutch Society of Sciences, 464
Harris (Geo., F.S.A.), Intellect and Instinct, 415
Hart (W. E.), Pollen-eating Insects, 161, 242
Harting (J. E., F.L.S.), "Handbook of British Birds," 101
"Harvesting Ants," by J. T. Moggridge, F.L.S., 337, 453
Hassler Expedition, 111
Hawkins (B. Waterhouse), his Models of Fossil Reptiles, 83
Hawksley (Thos.), Twinkling of the Stars, 262
Hayward (W. R.), "Botanist's Pocket-book," 360
Health Society, National, 131
Heat in Thibet, Senegal, Calcutta, &c., 170
Heer (Prof. O.), Murchison Fund awarded to, 355; Prehistoric Culture of Flax, 453
Hegelian Calculus, 442
Helminths, Growth and Migrations of, 265
Helvetic Society of Natural Sciences, 8
Henslow (Rev. G.), Leaf-arrangement, 403, 442
Herbaria at Kew and British Museums, 5, 26, 95, 103; Memorial to Mr. Gladstone, 212; his Reply, 243; the National, Prof. W. T. Thiselton Dyer on, 243
Herschel (Prof. A. S.), the November Star Shower, *with Maps*, 185; Auroral Display at Carlisle, 481
Hibberd (Shirley), "The Ivy," 198
Higgins (Rev. H. H.), November Meteors at Rainhill, 84
Himalayan Ferns, 321
Hippopotamus born at Zoological Gardens, 15, 55; Liberian, 392
Hobart Town, Meteorological Observations for, 320
Hooker (Dr. J. D., C.B., F.R.S.); his treatment by Mr. Ayrton, 71, 168; Herbaria of Kew and the British Museum, 5, 45, 103; Memorial to the Premier, 212; his Reply, 243; Kew Gardens, Ipecacuanha Cultivation, 83; Possession Islands, 384; View of Possession Islands, 486
Hope (W.), Flight of Projectiles, 362; Deep Wells, 283
Horses, Perception in, 340, 360, 361, 384, 410
Horticultural Society, 335, 374, 415, 474; and International Exhibition, 331
Higgins (Dr. W., F.R.S.), Inherited Instinct and Perception, 281, 377; Spectroscope, 320, 381
Huizinga (Prof. D.), Experiments on Abiogenesis, 380
Hull (E. W. D., F.R.S.), "Coal-fields of Great Britain," 319
"Human Physiology, First Principles of," by W. T. Pilter, 25
Hunterian Lectures by Prof. Flower, 281, 310, 330, 348, 364, 388, 408, 428
Hutton (F. W.), Movement of the Earth's Surface, 221
Huxley (Prof.) elected Lord Rector of Aberdeen University, 131, 250
Hydro-carbon Gas, Mr. Ruck's Process, 329
"Hygiene of Air and Water," by W. Proctor, M.D., F.C.S., 318

Iceland, Rainfall and Temperature, 245; Eruption of the Skaptar Jokull, 470
India; Dr. Fayrer on Venomous Snakes, 140; Hailstorm, 392; Science in, 15, 133, 162, 169, 290, 432; "The Useful Plants of," by Col. H. Drury, 340; "Stray Feathers," a Calcutta journal, 350; Travelling Notes in, 322; Trigonometrical Survey, 281
India Office, Zoological Collections at the, 457, 481
Indices of Journals, 464
Infectious Diseases, 283
Ingleby (Dr. C. M.), Kant's Antinomies, 262, 282, 302; Curved Space, 282
Inherited Instinct (*See* Instinct)
"Inorganic Chemistry," by the late Geo. Wilson, M.D., 441
Inscriptions in Trees, 83
Insects of the Wyandotte Cave, 12; Metamorphosis, by Prof. Duncan, F.R.S. (Br. A.), 30, 50; Mimicry of Colour in, 113; Pollen-eating, 132, 161, 202; Origin and Metamorphoses of, by Sir John Lubbock, Bart, M.P., 446, 486
Instinct or Reason? 47
Instinct and Perception in Animals, 281, 303, 322, 340, 360, 371, 377, 409, 415, 417, 424, 437, 443, 444, 463, 483
International Book Conveyance, 161; Metric Commission and Institution, 197, 237; Exhibition and Horticultural Society, 331
Intonation in Music, 275
Iowa, Geology of, 16
Ipecacuhana Cultivation at Kew, 83
Italian Geographical Magazine, 291; Report on the Eclipse of 1870, 308; Geographical Society and Journal, 452
Italy, Science in, 234; R. Accademia del Lincei, 335
"Ivy, The," by Shirley Hibberd, 198

Jade Works in Western Yunan, 317
Jamin (M.), Powerful Magnet, 452
Janssen-Lockyer Application of the Spectroscope, 301, 380
Janssen (Dr., and J. N. Lockyer, F.R.S.), Medal of, 54, 111
Japan, Engineering College, 430; Science in, 371; Volcanic Mountain, 169
Japanese Lepidoptera, 374
Japanese Medical Student at Berlin, 89
Jebb (G. R.), Perception in the Lower Animals, 410
Jeremiah (J.), Sociability of Cats, 425
Jesse (W., C.M.Z.S., and H. M. Labouchère, F.Z.S.), Dr. Brehm's "Bird Life," 121
Jevons (Prof. W. S., F.R.S.), Maupertuis on the Survival of the Fittest, 341, 402
Jones (Dr. Bence), Testimonial to, 390; on the New Physiological Laboratories, Berlin, 405; his Death, 489
Journal of Botany, 453, 494
Judd (J. W., F.G.S.), Wollaston Donation Fund given to, 355

Kant on the Retarded Rotation of Planets and Satellites, 241
Kant's Antinomies, 262, 282, 302
Katipo or Venomous Spider of New Zealand, 29
Kensington Entomological Society, 290
Kent (W. Saville, F.R.S.), Phosphorence in Fish, 47; Appointed Curator of the Brighton Aquarium, 209, 451
Kew Gardens, 71; Moreton Bay Plants, 370; Ipecacuanha Cultivation, 83; Herbarium, 5, 45, 26, 103; Memorial to Mr. Gladstone, 212; his Reply, 243; Prof. Dyer on, 243
Kingfisher, its Feeding Habits, 362
Kingsley (Rev. Canon), Perception in Horses, 340
Kirk (Dr.), Testimonial to, 451
Kirkwood (Prof. Daniel), November Meteors in Indiana, 123
Klein (E., M.D.), "Handbook for the Physiological Laboratory," 438

Laboratories of the Royal Institution, New and Old, 223, 263
Laboratories, Physiological, at Berlin, 405
Labouchere (H. M., F.Z.S., and W. Jesse, C.M.Z.S.), Dr. Brehm's "Bird Life," 121
Lakes, Fresh and Salt, Lectures by Prof. Ramsay, F.R.S., on, 312, 333
Lampris guttatis taken at Faroe, 106
Lankester (E. Ray), De Novo Production of Living Things, 104, 123; Hæmoglobin, 133; Dr. Burdon Sanderson's Experiments; Production of Bacteria, 242; Dr. Bastian's Experiments, 261
Laughton (J. K.), The Greenwich Date, 105; Perception in the Lower Animals, 410
Lava of Mount Vesuvius, 2
Leaf-Arrangement, by Dr. H. Airy, 341, 442; [Rev. G. Henslow, F.L.S., 403
Leeds, Medical Society, 111; Naturalists' Field Club, 155, 214, 232
Lehigh University, Pennsylvania, 491
Leidy (Prof.), Crustacean from Salt Lake, Utah, 215
Lewes (G. H.), Adaptation to External Conditions, 401; Perception in the Lower Animals, 410, 437
Liebig (Baron), his Death, 489
Light, its Effect on the Conductivity of Selenium, 33, 340, 361; Reflected and Transmitted, 481
Lindsay (Lord), his Preparations for the Transit of Venus, 109
Linnean Society, 39, 75, 154, 372
Lisbon, Notes on Zoology and Botany, 229
Livingstone (Dr.) and H. M. Stanley, 35, 38; his Discoveries, 70, 169, 231, 251, 110; "How I found Livingstone," by H. M. Stanley, 79; Congo Expedition, 110 (*See* African Exploration); Gold Medal from the Italian Government, 110
Lockyer (J. N., F.R.S.), on the Eclipse Expedition, 1871, 57, 92; Meteorology of the Future, 142; The Spectroscope and its Applications, 125, 166, 226, 246, 345, 406, 466; Spectrum Analysis, Spectrum of the Sun, 174; Medal of, 54, 111; (and G. M. Seabroke), New Method of Viewing the Chromosphere, 313; (and Dr. Janssen), their Application of the Spectroscope, 301, 381
Logarithmic Tables, 222
London Institution, 15, 190, 251
London University, 88, 310
Lord (J. K.), Obituary Notice of, 110
Lowe (E. J., F.R.S.), Earthquake near Derby, 68
Lubbock (Sir Jno., Bart., M.P., F.R.S.), Bill for Preservation of National Monuments, 297; Death of his Wasp, 391; Existence of Man in the Miocene, 401, 443; Origin and Metamorphoses of Insects, 446, 486
Lucae (Prof. J. C. G.), The Mammalian Skull, 460
Lunar Calendars, 47

"Machinery, Theory of," by Dr. F. Grashof, 45
MacLaren (Archibald), Dr. Morgan's "University Oars," 397, 418, 458
McClure (Robt.), Meteor at Glasgow, 28
McNab (Prof. W. R.), Flowering of Welwitschia, 202; Fossil Cryptogams, 367, 403
Madan (H. G., M.A.), Wilson's "Inorganic Chemistry," 441
Madras Cyclone, May 2, 1871, 356
Magnetic Survey of Belgium, 295
"Magnetism and Electricity," by J. Clerk-Maxwell, 478
Magneto-electric Light, 349
Mailly (Ed.), his Astronomical Works, 23
Mallet (R., F.R.S.), Theory of Volcanic Energy, 382
Mallock (A.), Treble Rainbow, 46
Mammalian Skull, The, 460
Man, Antiquity of, 401, 443
Manchester Literary and Philosophical Society, 135, 296, 315, 374, 415, 455, 475; Natural History Society, 151; Science in, 16
Manitoba Observatory, 425
Marine Animal, Supposed new, 67
Marlborough College Natural History Society, 311
Marsh (Prof. O. C.), his Expedition to the Rocky Mountains, 209; Fossil Birds from Kansas, 310; *Dinoceras mirabilis*, 366; Dinocerata, 491
Massey (H. D.), A Fact for Mr. Darwin, 462
Mathematical Society, 95, 154, 235, 334, 415, 474
Maupertuis on the Survival of the Fittest, 341, 402
Mauritius, Royal Society, 71; Meteor at, 221, 233; November Meteors at, 232; Meteorological Observatory, 243; Meteorological Society, 250
Maury (Capt. M. F.), Obituary Notice of, 390
Maxwell (Prof. Clerk, F.R.S.), Action at a Distance, 323, 341
Mayer (John, F.C.S.), Geological Exhibition, Glasgow, 128; The late Prof. W. J. M. Rankine, 204
Medical Microscopical Society, 210
Medical Record, 189
Meldrum (C.), November Meteors at Mauritius, 232
Mentone, Skeletons at, 401, 443
Merlin (C. H. W.), Moon's Surface, 221
Metamorphoses of Insects, by Prof. Duncan, F.R.S., 30, 50, 86
Meteorites: Vienna Collection, 55, 210
Meteorology: Committee of the Board of Trade, Ocean Observations, 43; Organisation Abroad, 89; Society, 95, 255, 49, 355, 455; of the Future, by J. Norman Lockyer, F.R.S., 98, 123, 142, 161, 283, 443; Sherman Astronomical Expedition, 107; Observatory at Mauritius, 243; Rainfall and Temperature of North Western Europe, 245; Cycles, 161, 262; Observations for Hobart Town, 320; Temperature of February, 1873, 371; American Signal-office, 371 (*See* Rainfall); Scottish Meteorological Society, 375; E. J. Stone, F.R.A.S., 443; Meteorological Notes, 471
Meteors: Shower of Nov. 27, 1872; Observations at Stonyhurst, Dublin, Lampeter, Rainhill, Malpas, Glasgow, Durham, Birkenhead, Bristol, Cumberland, St. Andrew's, 84 85; Buntingford, Brancepeth, Wisbeach, Birmingham, York, Glasgow, Newcastle-on-Tyne, Rothbury, 104; Prof. A. S. Herschel, F.R.A.S., on, 103; France and Italy, 112; Yale College (U.S.), Piedmont, Washington, 122; Indiana, Liverpool, Pau, 123; Bermuda, 181; Summary, with Maps, by Prof. A. S. Herschel, F.R.A.S., 185, 211; Göttingen, Dantzig, Athens, 211; Mauritius, 232; New Brunswick, 217, 251, 443; Shower in 1838, 203; Glasgow, 28; Blackpool, 29; Bristol, 71; at King's Sutton, Banbury, 112; South Pacific, 242; St. Thomas, 262; Stourbridge and Manchester, 262, 290, 315, 322; Cape Matapan, 443; April 19 and 20, at Bristol and Bath, 482; and Comets, Connection between, 468
Metric Commission, International, 197, 237
Microscopic Fungi, 78
Microscopic Preparations, 83
Microscopical Society, 154, 315, 374, 395, 455
Microscopical Journal, 294, 454

Microscopy, 170
Midland Institute, 209
Mildew, 61, 78
Miller (S. H.), Ocean Rainfall, 123
Mimicry: in Fungi, 55; in the Colours of Insects, 113
Mirage, References to Authorities on, 322
Moggridge (J. T., F.L.S.), "Trap-door Spiders," 337, 453
Monro (C. J.), Kant on the Retarded Rotation of Planets, 241; Anticipations of Natural Selection, 402
Montreal Natural History Society, 475
Moon's Surface, 221
Moore (T., F.L.S., and G. Jackman, F.R.H.S.), "The Clematis as a Garden Flower," 102
Moreton Bay Plants at Kew, 370
Morren (E.), Botanical Science in Belgium, 320, 334
Morgan (J. E., M.A.), "University Oars," 397, 418, 458
Moseley (H. N.), Notes on Zoology and Botany in Lisbon, 229; Anatomy of Land Planarians, 353
Mott (Albert J.), Periodicity of Rainfall, 161
Muller (Prof. Max) on Darwin's Philosophy of Language, 145, 412
Murchison Medal awarded, 355
Murie (Dr.), Testimonial to, 430
Murphy (J. J., F.G.S.), Water-beetles, 47; The Meteorology of the Future, 142; Fiords and Glacial Action, 323, 362; Mechanical Analogy to Perception in Animals, 483

Naresia cyathus, found by the *Challenger*, 387
National Monuments, Preservation of, 297
"Natural History, Anecdotal and Descriptive," 198
Natural History Museums, South Kensington and New York, 350
"Natural Philosophy, Elements of," by Profs. Thomson and Tait, 399
Natural Selection, Modern Applications of the Doctrine, 277 (*See* Darwinism)
Naval Architects' Institution, 431, 432
Navy (The) and Science; Royal Naval College, Greenwich, 217
"Nervous system, Exalted States of the," by R. H. Collyer, M.D., 360
Neumayer (Dr.), South Polar Exploration, 21, 62, 138
New Cross Microscopical Society, 231
New England, Fauna of, 365
New Guinea, 362
New Planets, 35, 132, 169, 189, 331, 491
Newton (A., F.R.S.), Yarrell's "British Birds," 461; Zoological Collections at the East India House, 481
Newton (Prof., H. A.), November Meteors at Yale College, 122
New York, Statistics of Education, 152
New Zealand; Venomous Spider, 29; New Zealand Institute, 132; Wellington Philosophical Society, 135
Nichols (T. L., M.D.), "Human Physiology," 261
Nicoll (W. R.), Inherited Instinct in Dogs, 340; Nitrogen, Spectrum of, 463
Norfolk and Norwich Naturalists' Society, 76
North Magnetic Pole, its Motion in the last two Centuries, 142
North Polar Exploration (*See* Arctic Exploration)
Northumberland and Durham, Natural History Transactions, 221

"Observatories of Great Britain," 232
Observatories; on Mount Vesuvius, 2; Florence, 15; Alleghany, 16; Central Asia, 71; France, 111; Vienna, 34; Sydney, 130; Mauritius, 243; Alleghany, 251; Manitoba, 289; Cape of Good Hope, 311; Paris, Montsourris, Marseilles, 331; Leyden, 350; Pera, 351; Madras, 371; Washington, 412; Manitoba, 425; Stonyhurst, 431; Trinity College, Dublin, 431; Edinburgh, 451
Ocean Meteorological Observations, 43, 68, 123; Rainfall, 183, 202
Occultation of Venus, 72
Octopus, Gigantic, 210
Old Change Microscopical Society, 231
"Organic Chemistry," by W. G. Valentin, F.C.S., 160
Organisation of Academical Study, 72
Ornithologists' Union, 392
Ornithology, "Stray Feathers," an Indian Journal, 350; "Thesaurus Ornithologiæ," by Dr. C. G. Giebel, 44
Orton (James), Ascent of Cotopaxi, 449
Osteology of Hypotomidæ, 294
Owen (Prof. R., F.R.S.), The National Herbarium, 5; Fossil Mammals of Australia, 255
Oxford, Science at, 53, 88, 250, 290, 490

Page (D., LL.D., F.G.S.), Geological Subjects taught at the College, Newcastle-on-Tyne, 102
"Palæontographica," by Drs. Dunker and Zittel, 45
Palestine Exploration, English and American Societies, 35, 152, 412
Palgrave (W. Gifford), Auroral Phenomena at Trebizond, 181
Palmieri (Prof.), "The Eruption of Vesuvius in 1872," 1, 259
"Paradoxes, A Budget of," by A. De Morgan, 239
Paris: Academy of Sciences, 20, 40, 59, 96, 115, 136, 176, 195, 216, 236, 256, 296, 316, 356, 376, 396, 416, 436, 452, 496; Award of Prizes, 86, 88; Jardin d'Acclimatation, 112, 351; Observatory, 331
Pathological Society, 189
Pavy (M.), his Arctic Expedition, 231, 270, 311
Pearson (Rev. Jas.), The Greenwich Date, 68
Penikese Island given to Prof. Agassiz for Scientific Purposes, 445, 471, 477
Perception in the Lower Animals, 340, 360, 361, 371, 377, 384, 409, 415, 438, 443, 444; a Mechanical Analogy, 483; in Men and Animals, 463, 483
Periodicity of Rainfall, 98, 143, 161
Perrier (Capt.), Geodetic Operations in Algeria, 450
Perry (Rev. S. J., F.R.A.S.), November Meteors at Stonyhurst, 84; Terrestrial Magnetism, 171, 193; "Magnetic Survey of Belgium," 295
Persia, Science in, 15
Petermann (Dr.), North Polar Exploration, 7
Perthshire Society of Natural Sciences, 491
Peruvian Skulls, 350
Petrified Forest in the Libyan Desert, 363
Peyton (J. E. H.), Boring in Sussex, 162
Pharmaceutical Society, 53, 131
Philadelphia, Academy of Natural Sciences, 76, 111, 156, 195, 215, 496; Philosophical 335, 475
Phillips (Prof. John, F.R.S.), Obituary Notice of Prof. Sedgwick, 257
Phœnician Vademecum, 462
Phosphorescence in Fishes, 47, 221
Phosphorescence in Wood, 464
Photographic Association of the United States, 412
Photographic Society, 35, 154, 235
Photography, Dr. Vogel appointed Professor at Berlin, 88; Professorship at Ghent, 111
"Physical Geography," by Prof. Geikie, 359
Physics for Medical Students, 7, 27
"Physiological Laboratory, Handbook for the," 438
Physostigma and Atropia, 69
Pigeon Express, Ceylon, 351
Pigeons, Inherited Instinct, 378, 417; protected from Rapacious Birds in China, 371
Pigott (E. V.), November Meteors at Malpas, 85
Pitter (W. T.), "First Principles of Human Physiology," 25
Planarians of Ceylon, Anatomy of, 353
Planets, New, 35, 132, 169, 189, 331, 491; and Satellites, Retarded Rotation of, 241
"Plants, Natural History of," by H. Baillon, 320
Plateau (Felix), Aquatic Articulata, 469
Pogson (N. R.), Hints on Collecting Arachnida, 163
Pollen-eating Insects, 132, 161, 202, 242
Popular Science in 1872, 142
Portsmouth, U.S. Exploring Ship, 268
Possession Islands, R. H. Scott and Dr. Hooker, C.B., on, 384; View of, 486
Potato Disease, 151, 171
Prehistoric Culture of Flax, 453
Priestley (Dr.), Statue of, 210
Pringle (E. H.), Height of Thunderclouds, 143
Pringle (E. W.), Reflected Sunshine, 162; Spectroscopic Observations, 222
Proctor (H. R.), Aurora Spectra, 242; Spectroscope, 381
Proctor (W., M.D., F.C.S.), "Hygiene of Air and Water," 318
Progress of Science in the last Twenty-five Years, 137, 158, 162
Projectiles, Flight of, 362, 404

"Psychology, Principles of," by Herbert Spencer, 298, 357
Putrefaction and Fermentation, 61, 78
Pyramid, Great, 71
Pyramid Mountain, 423
Pyrometer, New, 273
Pye-Smith (Dr. P. H.), The Mammalian Skull, by Prof. Lucae, 460

Quantock Hills, Flora of the, 48
Queckett Club, 94

Radiation of Heat from the Moon, 436
Radiant Heat, Prof. Tyndall's Researches on, 66; Capt. Ericsson on, 273
Rainbow, Treble, 46; on Blue Sky, 68
Rainfall: Periodicity of, 98, 143, 161; at Barbados, 124, 161; for October 1872, 16; at Sea, 123, 202; and Temperature of North-Western Europe, 245
Ramsay (A.), Authorities on Mirage, 322
Ramsay (Prof., F.R.S.), Fresh and Salt Lakes, 312, 333
Rankine (Prof. W. J. Macquorn), Obituary Notice of, 204
Ransom (A.), Inherited Instinct, 322
Ranyard (A. Cowper), Polarisation of Zodiacal Light and Aurora, 201
Rawson (Rawson W.), Rainfall at Barbados, 124, 161; Meteor at St. Thomas, 262
Reason or Instinct? 47
Reclus (Elisée), "The Earth" and "The Ocean," 421
"Records of the Rocks," by Rev. W. S. Symonds, F.G.S., 461
Reid (Serg.-Major R.), Flight of Projectiles, 341, 404
Reflected and Transmitted Light, 481
Reflected Sunshine in India, 162
Respighi (Prof.), Solar Diameter, 385
Reynolds (Prof. Osborne), Meteor at Manchester, 315
Rhinoceros born in Victoria Docks, 133; its Death, 255
Riga, Society of Naturalists, 155, 215, 495
"River Basins, Notes on," by R. A. Williams, 122
Roberts (E.), The Greenwich Date, 105
Roberts (Wm., M.D.), Dr. Bastian's Experiments, 302, 321, 381
Robertson (G. C.), External Perception in Animals, 322, 361, 377, 409
Rocky Mountains, Prof. Marsh's Expedition, 209
Rodwell (G. F., F.C.S.), "The Birth of Chemistry," 36, 90, 104, 206, 285, 393, 492; Lectures on Ancient Science, 190
Romanes (G. J.), Perception in the Lower Animals, 411
Ross (Dr. James), Anticipations of Natural Philosophy, 402
Ross (Sir James), Portrait of, 55; his South Polar Explorations, 63, 139
Rosse (Earl of, D.C.L., F.R.S.), Diathermacy of Flame, 28; Radiant Heat, 273; Radiation of Heat from the Moon, 436
Rotability, Treatise on, 124
Rowing; "University Oars," by J. E. Morgan, M.A., 397, 458, 418
Royal Commission on Scientific Instruction, 70, 268
Royal Institution, 15, 88, 111, 131, 170; New and Old Laboratories, 223, 263
Royal Society, 34, 70, 75, 114, 133, 174, 213, 235, 254, 275, 294, 313, 331, 353, 369, 372, 390, 395, 413, 434, 453, 454, 470
Ruck's Hydrocarbon Gas, 329
Rugby School, 131, 151
Russell (H. C.), Coloured Stars about Kappa Crucis, 130
Russia, Science in, 55
Rutherfurd (L. M.), Stability of the Collodion Film, 391

St. Andrews University, 231
St. Clair (G., F.R.S.) Meteor near Stourbridge and at Manchester, 262, 290
St. Petersburg, Academy of Sciences, 194; Geographical Society, 452
Sale (M. L., R. E.) Electric Conductivity of Selenium, 340
Salmon-breeding in Silesia, 290
Salmonidæ of Great Britain, 162, 203
Salt Lakes, 312, 333
Sanderson (Dr. J. Burdon, F.R.S.), Dr. Bastian's Experiments on the Beginnings of Life, 180, 242, 261, 275, 302, 321, 380, 413; "Handbook for the Physiological Laboratory," 438
Sanitary Association, Dublin, 332
Saxon Antiquities at Trinity College, Cambridge, 251
Schäfer (E. A.), Striped Muscular Fibre, 489
Schmidt (J. F.), November Meteors at Athens, 211
School of Mines, Lectures, 269
Schweinfurth (D.), his African Travels, 55, 215
Science and Art Department; Lectures, 35, 230, 290, 370
Scientific Research and University Endowments, 97
Sclater (Dr. P. L., F.R.S.), Proceedings of Zoological Collectors, 110
Scott (A. W.), November Meteors at Lampeter, 84
Scott (R. H.), Possession Islands, 384
Scottish Coal Fields, 14
Scottish Meteorological Society, 245
Scottish Naturalist, 453
Scrope (G. P.), German Translation of his work on "Volcanoes," 469
Seabroke (G. M., and J. N. Lockyer, F.R.S.), New Method of viewing the Chromosphere, 313
Seals in the Frith of Clyde, 152
Sedgwick (the late Professor), Obituary Notice of, 257; Memorial to, 391, 411
Selenium, Effect of Light on, during an Electric Current, 303, 340, 361
"Sepulchral Monuments of Cornwall," by W. C. Borlase, B.A., 337, 378
Settle Cave Exploration, 374
Sheep, Instinct in, 425
Sheffield, Literary and Philosophical Society, 310; Naturalists' Club, 311
Shelley (G. E., F.G.S., F.Z.S.), "Handbook to the Birds of Egypt," 178
Sherman Astronomical Expedition, 107
Sight in Dogs, 361, 384, 377, 409, 424
Signal Service in America, 484
Silesian Society for National Culture, 137, 158, 162
Silex in Water, the cause of its Blue Colour, 132
Skeletons at Mentone, 401, 443
Skeletons of Wild Animals, 46
Skull, The Mammalian, 460
Skulls of the Troglodytes of the Vézère, 426; found near Danzig, 372
Smell in Animals, 360, 377, 384, 409, 410, 411, 424
Smith (Archibald, LL.D., F.R.S.), Obituary Notice of, 169
Smith (George), his Expedition to Assyria, 151, 210
Smith (Willoughby), Effect of Light on Selenium, 303, 340, 361
Smith (W. Robertson), Hegelian Calculus, 442
Smyth (Prof. Piazzi, F.R.S.), Petrified Forest in the Libyan Desert, 363; Royal Observatory, Edinburgh, 451
Snakes, Venomous, of India and Australia, 15, 140, 190
Society of Arts, 55, 150, 392, 451
Solar Diameter, Prof. Respighi on, 335; Heat, its Source, 262; Spots, Spectra of, 107, 108
Somersetshire Natural History Society, 48
Somerville (Mary), Obituary Notices of, 87, 132, 151
South London Entomological Society, 131
South London Museum, Proposed, 251
South Polar Exploration, 21, 62, 138
Spalding (Douglas A.), Herbert Spencer's "Psychology," 298, 357; Perception in Animals, 377
Spanish Society of Natural History, 411
Spectra: Effect of Resistance in Modifying, Prof. Tyndall on, 384; of Solar Spots, 107, 108; of Aurora, 242, 463; of the Aurora and Zodiacal Light, 182, 201; of Nitrogen, 463
Spectroscope, its application, by Janssen and Lockyer, 301, 320, 381
Spectroscope and its Applications, by J. N. Lockyer, F.R.S., 125, 166, 226, 246, 345, 406, 466
Spectroscopic Observations, 222
Spectrum Analysis; the Spectrum of the Sun, by J. N. Lockyer, F.R.S., 174
Spencer (Herbert), "Principles of Psychology," 298, 357; Planarians and Leeches, 354
Spiders, Hints on Collecting, 163
"Spiders, Trap-door," by J. T. Moggridge, F.L.S., 337, 453
Spitzbergen, Geographical Discoveries, 413
Sponges; "Die Kalkschwämme," by E. Häckel, 279
Spottiswoode (Wm., F.R.S.), Old and New Laboratories of Royal Institution, 223, 263
Sprengel (Dr. H.), Invention of the Water Air-pump, 241
Springs, Deep, Prof. Geikie, F.R.S., on, 177, 283

Standard Yard, 391
Stanley (H. M.) and Dr. Livingstone, 38; "How I found Livingstone," 79, 190
Stars (Coloured) about Kappa Crucis, 130
Stars, Twinkling of the, 222, 262
Star Shower, Cometary, 77; in 1838, 203; of Nov. 27 (*See* Meteors)
State Aid to Science; Speech of Mr. Gladstone, Arctic Exploration, 117, 157, 170, 188, 208, 310, 452; Kew Herbarium, 243
Steamer for the Channel Passage, 41
Stearn (C. H.), Spectrum of Nitrogen, 463
Steel, Gold Medal offered for best Specimens, 151
Stewart (Prof. Balfour, F.R.S.), on Arctic Exploration, 157; Janssen-Lockyer Application of the Spectroscope, 301, 320, 381
Stockholm, Academy of Natural Science, 268
Stone Implements of the Troglodytes of the Vézère, 306, 328, 367, 373
Stone (E. J., F.R.A.S.), Meteorology of the Future, 443
Stricker (S.), "Medizinische Jahrbucher," 478
Striped Muscular Fibre, Structure of, 489
Sub-Wealden Exploration, 288, 404
Survival of the Fittest, theory of Maupertuis, 341, 402; Prof. Agassiz on, 404
Swan (W.), November Meteors at St. Andrews, 86
Swedish Academy of Sciences, 153, 173; Arctic Expedition, 171
Swiney Lectureship, 310
Switzerland, Great Map of, 470; Science in, 54, 235; Society of Natural Sciences, 8
Symonds (Rev. W. S., F.G.S.), Salmonidæ of Great Britain, 162; "Records of the Rocks," 461
Symons (G. J.), Ocean Meteorological Observations, 68, 123; Periodicity of Rainfall, 143, 161; International Book Conveyance, 161; Ocean Rainfall, 183

Tait (Prof. Lawson), Polydactylous Cat, 323
Tait (Prof. P. G. and Prof. Sir W. Thomson), "Elements of Natural Philosophy," 399
Taylor (J. E.), Skeletons of Wild Animals, 46
Technical Education, 351
Telegraph, Atlantic, Free Transmission of Astronomical Observations, 250
Telegraph Engineers Society, 152, 210
Telegraphic Journal, 88
Telegraphy, Double Messages on Single Wire, 171
Temperature and Rainfall of North Western Europe, 245
Terrestrial Magnetism; Motion of the North Magnetic Pole, 142; Rev. S. J. Perry, F.R.A.S., on, 171, 193
"Thesaurus Ornithologiæ," by Dr. C. J. Giebel, 44
Thierfelder (Dr. Albert), "Pathologische Histologie," 200
Thompson (Dr. Symes), Contagious and Infectious Diseases, 283
Thomson (Sir W., D.C.L.), Papers on Electrostatics and Magnetism, 218
Thomson (Prof. Sir W., and Prof. P. G. Tait), "Elements of Natural Philosophy," 399
Thomson (Prof. Wyville, F.R.S.), Fermentation and Putrefaction, 61, 78 (*See Challenger*)
Thunderclouds, height of, 143
Tin Ore in Queensland, 59
Torquay Natural History Society, 190
Tortoiseshell Butterfly, Metamorphosis of, 30
Trades' Guild of Learning, 490
"Transfervent" or "Diathermous," 341
Transit of Venus, Lord Lindsay's Preparations, 109; America, 169; India, China, 371; New South Wales, 431; Berlin, 451
"Trap-door Spiders," by J. T. Moggridge, F.L.S., 337, 453
Travelling Notes, 362
Troglodytes of the Vézère, 305, 326, 366, 426
Troubelot (L.), Meteorology of the Future, 283
Tuckwell (Rev. W., M.A.), Flora of the Quantocks, 48; University Local Examinations, 71
Tumbler Pigeons and Inherited Instinct, 378
Tunnel through the Hoosac Mountains, 189
Twinkling of the Stars, 222, 262
Tyndall (Prof. J., F.R.S.), his Lectures in America, 34, 54, 150, 190, 224, 249, 268, 370, 445, 490; Banquet to him at New York, 303; his Return, 349; his Work at the Royal Institution, 265; Researches on Radiant Heat, 66; Effect of Resistance in Modifying Spectra, 384; "Forms of Water, 400; Reflected and Transmitted Light, 481
Tyneside Naturalists' Field Club, 268

United States Coast Survey, 189
University College, 88, 190
University Endowments, Speech of Mr. Gladstone, 150; Endowments and Scientific Research, 97; Local Examinations, 71
"University Oars," by J. E. Morgan, M.A., 397, 418, 458

Valentin (W. G., F.R.S.), "Introduction to Organic Chemistry," 160
Venice, Royal Institute of Science, 54
Venus, Occultation of, 72; Transit of, Preparations, 109, 169, 371, 431, 451
Venomous Snakes of India, 140
Venomous Spider of New Zealand, 29
Verney (E. H., Com. R. N.), Meteor off Cape Mataplan, 443
Verrill (Prof. A. E.), Fauna of New England, 365; Dana on Corals, 423
"Vesuvius: The Eruption of 1872," by Prof. Palmieri, 1, 259
Vézère, Troglodytes of the, 305, 326, 336, 426
Victoria: Coalfields, 200; Reports of Mining Surveyors, 201; Society of Arts, 351; Exhibition at Melbourne, 452; Zoological and Acclimatisation Society, 484
Vienna: Observatory, 34; Exhibition, 150; Imperial Academy of Sciences, 155; I. R. Geological Institute, 175, 336, 442, 476, 495; Geological "Jahrbuch," 320; Meteorites in Imperial Museum, 210; International Patent Congress, 412
Vierordt (Dr. K), "Die Anwendung des Spectralapparate," 401
Vine Disease, 131
Vogel (Dr.), Professor of Photography at Berlin, 111
Volcanic Energy, Mr. Forbes on, 259; Mr. Mallet's Theory, 382
Volcanoes: Eruption of Vesuvius in 1872, 1; Mauna Loa, the Hawaiian Volcano, 124; Japan, 169; Central America, 268; Chili, 312; Rangitoto, 423; Ascent of Cotopaxi, 449; Skaptar Jokull, 470
Volpicelli (Prof.), Atmospheric Electricity, 9

Wagner (R., Ph.D.), "Handbook of Chemical Technology," 4
Wallace (A. R., F.Z.S.), Misleading Cyclopædias, 68, 162; Modern Applications of the Doctrine of Natural Selection, 277; "Harvesting Ants and Trap-door Spiders," by J. T. M. Moggridge, F.L.S., 337; Instinct and Perception in Animals, 322, 340, 360, 377, 384, 409; Cave Deposits of Borneo, 461
Walters (J. H.), Sight in Dogs, 361
Water, its Blue Colour, caused by Silex in Solution, 132
"Water, Forms of, in Clouds, Rivers, Ice and Glaciers," by Prof. J. Tyndall, F.R.S., 400
Water; "Hygiene of Air and Water," by W. Proctor, M.D., F.C.S., 318
Water-Air-Pump, its Invention, 241
Water-beetles, 47
Watts (H., F.R.S.) Fownes's "Manual of Chemistry," 179
Webb (Rev. T. W., M.A., F.R.A.S.), Star Shower in 1838, 203; Earthquake in Pembrokeshire, 283
Weight, Ancient Egyptian, 146
Weiss (Prof.), November Meteors, 211
Wells, Deep, 177, 283
Welwitschia, Prof. W. R. McNab on, 154, 202
Westminster Clock Tower, Illuminated, 349
Wetterham (J. D.), Perception in Butterflies, 444
Whales, Fossil, 94, 350
Wheatstone (Sir C., F.R.S.), Ampère Medal awarded to, 451
Wheeler (Lieut. G. M.), Explorations in Nevada, 431
Whirlwinds, in Ireland, and near Banbury, 112
Whitmee (S. J.), Meteors in South Pacific; the Greenwich Date, 242
Whitworth Scholarships, 370
Whymper (Edw.), Researches in Greenland, 8, 35
Wilkinson (T. T.), authorship of "Treatise on Probability," 124
Willemoes-Suhm (Rud. v.), Zoology of the Faroe Islands, 105
Williams (R. A), "Notes on River Basins," 122
Williams (W. M., F.C.S.), Diathermacy of Flame, 46, 149, 201; Science in Italy, 234; Radiant Heat, 273
Williamson (Prof. W. C., F.R.S.), Fossil Cryptogams, 403
Will-o'-the-Wisps, 222

Wilson (A.), "Elements of Zoology," 179
Wilson (the late Geo., M.D.), "Inorganic Chemistry," 441
Wings of Insects, their Growth, 50
Winstanley (D.), Meteor at Blackpool, 29
Wintle (L. H.), The Rising of Australia, 129
Wisconsin Academy of Science, 274
Wollaston Gold Medal, 354
Wood (Searles W., jun.), Antiquity of Man, 443
Wood (W. W.), Geographical Distribution of Dipterocarpeæ; Electricity and Earthquakes, 162
Woodbury (W. B.), Reflected and Transmitted Light, 481
Woodward (B. B. and H.), Reclus' "Earth" and "Ocean," 421
Woodward (H., F.G.S.), Geology of Brighton, 395
Woolwich, Fire at the Military Academy, 269
Working Men's College, 471
Wright (W.), Meteor at Mauritius, 221, 233
Wyandotte Cave and its Fauna, 11

Yarrell's "British Birds," by A. Newton, F.R.S., 461
Yates's Bequests, 391
Yellowstone National Park, 431
Young (Prof. C. A.), Bright Lines in the Solar Spectrum, 17; Corona Line, 28; Sherman Astronomical Expedition, 107
Young (Dr. John), Indices of Journals, 464
"Yunan (Western), Expedition to," by J. Anderson, M.D., 317

Zittel (Dr. A. K., and Dr. W. Dunker), "Palæontographica," 45
Zodiacal Light, Spectrum of, 182, 201; Polarisation of, 201, 340, 341; Observations at Jamaica, 203
Zöllner (Prof. F.), Connection between Comets and Meteors, 468
Zoological Collections at the India House, 457, 481
Zoological Record, 332
Zoological Society, 75, 134, 255, 295, 334, 373, 415, 434; Gardens; Additions to, 190, 351, 370, 371, 392, 413, 432, 453, 472, 491; Birth of Hippopotamus, 15, 55; Death of a Lioness, 251; New Entrance, 470
Zoological Society of Ireland, 332
Zoological Society of Victoria, 484
"Zoology, Elements of," by A. Wilson, 179
Zoology: Notes in Lisbon, 229; of the Faroe Islands, 105; Proceedings of Collectors, 110